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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/501,100

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Katsuo Sugahara

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DARBY & DARBY P.C.

P. O. BOX 5257

NEW YORK, NY 10150-5257

EXAMINER

ROE, JESSEE RANDALL

ART UNIT

PAPER NUMBER

1742

MAIL DATE

DELIVERY MODE

05/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/501,100

Applicant(s)

SUGAHARA, KATSUO

Examiner

Jessee Roe

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1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-26 is/are pending in the application.
- 4a) Of the above claim(s) 4-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 February 2007 has been entered.

Claims Status

Claims 2-26 are pending wherein claim 2 is amended; claim 1 is canceled; and claims 4-26 are withdrawn from consideration.

Status of Previous Rejections

The previous rejections of claims 2-3 under 35 U.S.C. 103(a) as being unpatentable over Suarez et al. (US 6,106,643) in view of any one of Bieber et al. (US 3,619,182), Olson (US 3,619,183), Baldwin et al. (US 3,918,964) or Peterson (US 3,984,239) is withdrawn in view of the Applicant's amendments to the claims.

Terminal Disclaimer

The terminal disclaimer filed on 22 December 2006 disclaiming the terminal portion of any patent granted on this application which would extend

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beyond the expiration date of copending US Application Number 10/546,130 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuo et al. (JP 06-128671).

In regards to claims 2 and 3, Kazuo et al. (JP '671) disclose a nickel-based alloy consisting of 38-45 weight percent chromium; 0.5-5.0 weight percent, in total, of one or more of molybdenum, tungsten, and vanadium; up to 0.1 weight percent magnesium; up to 1.0 weight percent manganese; up to 1.0 weight percent silicon; and up to 0.07 weight percent carbon; up to 1.0 weight percent silicon; 40-57 weight percent nickel; and the balance iron (greater than 0-21.5 weight percent), which overlaps the claimed amounts of chromium, molybdenum, magnesium, manganese, silicon, carbon, and iron, which is a prima facie case of obviousness (abstract). See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the desired amounts of the elements from the ranges of elements disclosed by Kazuo et al. (JP '671) because Kazuo et al. (JP '671) disclose the same utility throughout the

disclosed ranges.

In regards to the limitation of nitrogen being in the range of 0.001 to 0.04 weight percent in claim 1, the Examiner notes that all of the embodiments disclosed by Kazuo et al. (JP '671) have nitrogen within the claimed range.

In regards to the recitation of having "excellent corrosion resistance relative to supercritical water environments" in claim 1, the Examiner asserts that the alloy of Kazuo et al. (JP '671) would have such properties because Kazuo et al. (JP '671) disclose substantially the same composition as that of the claimed invention. See MPEP 2112.01 I.

In regards to claim 3, Kazuo et al. (JP '671) disclose forming the alloy into a thick plate, round bar, or pipe, which would be members for a supercritical water process reaction apparatus (0001).

Response to Arguments

First, the Applicant argues that the silicon content in the examples disclosed by Kazuo et al. (JP '671) are of orders of magnitude different than the silicon content claimed in the present application, nitrogen is not described in the Kazuo et al. (JP '671) description, and the iron concentration disclosed by Kazuo et al. (JP '671) is higher than that of the present application. The Examiner disagrees. The abstract of Kazuo et al. (JP '671) discloses less than or equal to 1.0 weight percent silicon; each example disclosed by Kazuo et al. (JP '671) included nitrogen; and the abstract states that the balance would be iron, which

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would indicate that the iron content would be above 0 weight percent. A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). See also *Upsher-Smith Labs. v. PamLab, LLC*, 412 F.3d 1319, 1323, 75 USPQ2d 1213, 1215 (Fed. Cir. 2005). See MPEP 2123.

Second, the Applicant argues that the instant application differs from that of Kazuo et al. (JP '671) because Kazuo et al. (JP '671) disclose the addition of titanium and aluminum in order to improve hot working nature and to improve cleanliness. The Examiner agrees that Kazuo et al. (JP '671) disclose that titanium and aluminum provide these features. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to omit titanium and aluminum where the functions of improved hot working nature and improved cleanliness are not desired or required. *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989) (Claims at issue were directed to a method for inhibiting corrosion on metal surfaces using a composition consisting of epoxy resin, petroleum sulfonate, and hydrocarbon diluent. The claims were rejected over a primary reference which disclosed an anticorrosion composition of epoxy resin, hydrocarbon diluent, and polybasic acid salts wherein said salts were taught to be beneficial when employed in a freshwater environment, in view of secondary references which clearly suggested the addition of petroleum sulfonate to corrosion inhibiting compositions. The Board affirmed the rejection, holding that it would have been obvious to omit the polybasic acid salts of the

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primary reference where the function attributed to such salt is not desired or required, such as in compositions for providing corrosion resistance in environments which do not encounter fresh water.). See also *In re Larson*, 340 F.2d 965, 144 USPQ 347 (CCPA 1965) (Omission of additional framework and axle which served to increase the cargo carrying capacity of prior art mobile fluid carrying unit would have been obvious if this feature was not desired.); and *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975) (deleting a prior art switch member and thereby eliminating its function was an obvious expedient).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessee Roe whose telephone number is (571) 272-5938. The examiner can normally be reached on Monday-Friday 7:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JR



ROY KING
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700